IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

POWER INTEGRATIONS, INC., Plaintiff, v. FAIRCHILD SEMICONDUCTOR INTERNATIONAL, INC., and FAIRCHILD SEMICONDUCTOR CORPORATION, Defendants.	)	**REDACTED PUBLIC VERSION** C.A. No. 04-1371-JJF

DEFENDANTS' ANSWERING CLAIM CONSTRUCTION BRIEF

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Defendants Fairchild Semiconductor International, Inc. and Fairchild Semiconductor Corporation (collectively, "Fairchild") respectfully respond to Plaintiff Power Integrations, Inc.'s ("Power Integrations") opening claim construction brief.

I. INTRODUCTION.

Power Integrations blusters (without any support) that the Court should disregard Fairchild's proposed constructions. Rather than address the intrinsic evidence – the claims, the specifications, and the prosecution histories of the asserted patents – Power Integrations relies upon disfavored extrinsic "evidence," such as dictionary definitions and declarations of its own paid experts. Instead of addressing the case law, Power Integrations invents legal standards like the "well-settled 'it makes absolutely no sense' principle." The Court should see this for what it is – a desperate attempt by Power Integrations to avoid the issues.

The reason why Power Integrations ignores both the law and the intrinsic evidence is simple: Power Integrations' litigation-inspired constructions are without factual or legal support.

All of the intrinsic evidence supports Fairchild's proposed constructions. Indeed, extrinsic evidence – such as the deposition testimony of the inventors and the declarations of Power Integrations' own experts – also supports Fairchild's constructions. In contrast, Power Integrations' constructions are directly contrary to the intrinsic evidence and must be rejected.

II. FACTUAL AND LEGAL BACKGROUND.

A. Fairchild Has Not Improperly Changed Its Proposed Constructions.

Power Integrations spends an inordinate amount of its brief complaining that Fairchild has refined its claim construction positions. Since Power Integrations agrees that Fairchild should not be precluded from advancing its claim constructions (*see* PI Brief, pp. 2-3), it is unclear why Power Integrations raises this issue rather than discuss the intrinsic evidence.

1. Fairchild's changes have not been untimely.

Power Integrations accuses Fairchild of changing its claim constructions "beyond the Court's schedule for doing so," which Power Integrations states was "August 22." PI Brief, p. 2. This is deceptive since the Court's schedule only required the parties to exchange their ***initial***

proposed constructions on August 22, 2005. Thereafter, the parties were to meet and confer to resolve their disputes. (D.I. No. 17). Fairchild has abided by the Court's schedule.

2. **Power Integrations has continued to change its claim constructions.**

Power Integrations and Fairchild agreed to continue this meet and confer process (rather than stop it at an arbitrary date) with the hope that the parties could reduce the issues in dispute. *See* Exh. R.[1] In mid-November, Power Integrations was refining its own claim construction positions. Indeed, Power Integrations has continued to change its positions and, in fact, proposes constructions in its Brief that were never previously submitted to Fairchild.[2] Fairchild did not raise these changes in its opening brief because they are irrelevant to the issue at hand – how the claims should be construed. Fairchild only addresses these issues now to respond to Power Integrations' unfounded accusations.

3. **It is Power Integrations, not Fairchild, that has adjusted its proposed constructions to seek to avoid the prior art.**

Power Integrations' argument that Fairchild has changed its claim construction position to argue that the claims are invalid and/or not infringed is similarly specious. To the extent that Fairchild has changed its position during the meet and confer process, it has done so either (i) in an effort to compromise with Power Integrations and reduce the issues in dispute or (ii) because additional discovery altered how Fairchild understood one of ordinary skill in the art would have understood the term at the relevant time. For instance, after deposing the lead inventor, Fairchild understood that the "soft start circuit" element is not means-plus-function since one of ordinary skill in the art would have understood this element to denote structure. Indeed, ***Power Integrations***' own expert agrees with this. *See* Blauschild Decl., ¶ 6 ("one of skill in the art could conceive of various 'soft start circuit' ***structures*** to accomplish the functions recited in the

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[1] Exhibits A-Q are attached to Fairchild's Opening Claim Construction Brief; exhibits R-AA are attached hereto.

[2] *Compare, e.g.*, Exh. R, Power Integrations' 11/11/05 construction of secondary voltage sources ("A voltage source is a source, i.e. a place of procurement or a supply, of voltage and may include, for example, a resistor having a substantially constant current flowing through it. A secondary voltage source is a source of a secondary voltage. Nothing in the claims or specification requires the secondary voltage source be independent from the source of the primary voltage.") with the construction proposed in its brief ("one or more voltage sources used to generate the secondary voltage."); Power Integrations has also altered its constructions of "soft start circuit", "substrate", "a pair of laterally spaced pockets of semiconductor material of a second conductivity type within the substrate", "being subject to application of a reverse-bias voltage", and "substrate region thereunder which forms a channel".

patent claims associated with the soft start circuit....") (emphasis added).

In contrast, during the parties' extended claim construction process, Power Integrations repeatedly changed positions in an effort to avoid prior art identified by Fairchild. For instance, in its original, ***verified*** interrogatory responses, Power Integrations construed "frequency variation circuit" as "a structure that provides a signal (the 'frequency variation signal') that is used to modulate or change the frequency at which the switch is operated." Exh. S, Exh. A, p. 2. After Fairchild identified prior art and provided detailed charts illustrating how Power Integrations' proposed construction would render its claims invalid, Power Integrations changed its constructions in a supplemental, ***unverified*** interrogatory response that incorporated additional elements from the preferred embodiment. *See* Exh. T (Power Integrations' Supplemental Interrogatory Responses), Exh. A ('851 Patent), p. 3 (adding requirement that the frequency variation signal "is [i] an internal signal that [ii] varies in magnitude during a fixed period of time and is used to modulate or change the frequency of the oscillation signal with a frequency range."). Thereafter, Power Integrations proposed yet another construction that incorporated still more limitations found only in the preferred embodiment. *See* PI Brief, Appendix p. 1 (adding limitation that the frequency variation signal "cyclically varies").

B. **Power Integrations' Constructions Contradict the Intrinsic Evidence.**

Claims must be construed in light of the intrinsic evidence – (i) the claims, themselves, (ii) the patent's specification, and (iii) the prosecution history. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (*en banc*). While Power Integrations pays lip service to this bedrock principle of claim construction, Power Integrations' brief largely ignores the intrinsic evidence and relies, instead, on disfavored extrinsic evidence, such as dictionary definitions and the after-the-fact declarations of its own, paid experts.

As the Federal Circuit has cautioned, extrinsic evidence of the sort relied upon by Power Integrations should be viewed "in general as less reliable than the patent and its prosecution history in determining how to read claim terms." *Id.* at 1318. As a matter of law, Power Integrations' extrinsic evidence can never be permitted to contradict the intrinsic evidence.

Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1309, (Fed. Cir. 1999) ("had the district court relied upon the extrinsic evidence to contradict the claim construction unambiguously apparent from the intrinsic evidence it would have been error").

The reason that claims are to be construed in light of the intrinsic evidence is that the public has the right to rely upon such evidence to determine the meaning of the claims. "The public notice function of a patent and its prosecution history requires that a patentee be held to what he declares during the prosecution of his patent." *Spring Windows Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 995 (Fed. Cir. 2003). Obviously, the public does not have access to the extrinsic evidence (such as the reports of Power Integrations' experts or selected dictionary definitions) upon which Power Integrations now purports to rely. Fairchild, in fact, relied upon the intrinsic evidence (such as Power Integrations' unambiguous disavowal of DMOS structures) before designing the accused devices. Exh. AA, Jeon Depo. 37:19-41:22.

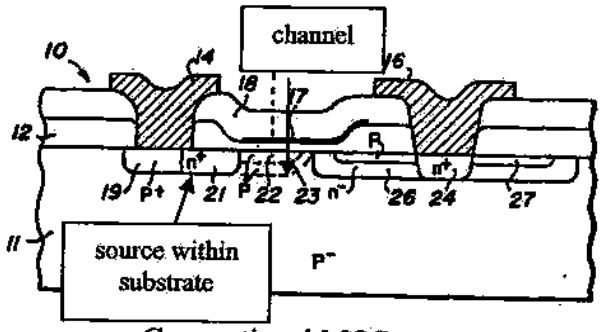
C. Power Integrations' Proposed Constructions Improperly Seek To Read Limitations From The Specifications Into The Claims.

On those few occasions where Power Integrations addresses the intrinsic evidence, it seeks to read limitations from the preferred embodiment into the claims. While Power Integrations admits that it does so to avoid the prior art (*see e.g.* PI Brief, p. 17 ("literal language of claim limitation" should be rejected as it encompasses prior art)), this is wrong as a matter of law. *See Resonate Inc. v. Alteon Websystems*, 338 F.3d 1360, 1364-1365 (Fed. Cir. 2003).

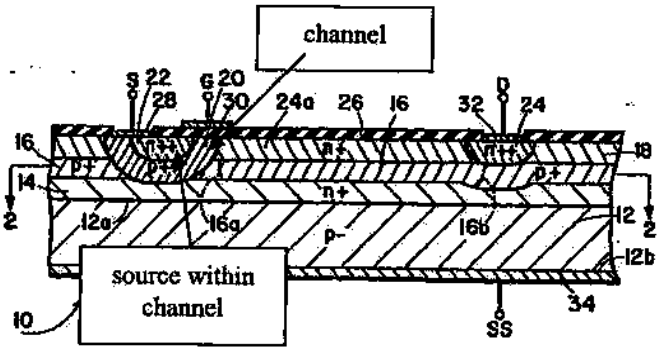
While the specifications are necessary to understand the claims, the Court should not read limitations from the specification into the claims. As the Federal Circuit has noted, the claims can be – and, indeed, almost always are – broader than the specification. *See Bilstad v. Wakalopulos*, 386 F.3d 1116, 1124 (Fed. Cir. 2004). Had Power Integrations intended its claims to be limited to the preferred embodiments, it would have done so by expressly incorporating additional elements or requirements into the claims. Having elected to, instead, broadly claim PWM devices, Power Integrations cannot now limit its claims to avoid a finding of invalidity.

III. **U.S. PATENT NO. 4,811,07.**

The intrinsic evidence of the '075 Patent plainly defines the "DMOS" structure disavowed by Power Integrations as a MOS structure in which the source pocket is formed entirely within a channel region of more heavily doped semiconductor material (commonly referred to as a "body" region) that is formed within the substrate. Indeed, Power Integrations admits that the defining feature of the DMOS structure disclosed in the intrinsic Colak reference is the "source diffusion region completely within a channel diffusion region" and "that the channel region itself... is formed by the first diffusion."[3] PI Brief, pp. 28-29. This structure differs from conventional MOS structures where the source and channel are formed directly within the substrate instead of within a more heavily doped channel region. This fundamental difference in the source and channel structure of conventional MOS and DMOS is depicted in the following illustrations and explained and illustrated in more detail based on the intrinsic evidence in the attached tutorial by Dr. Gwozdz. *See* Gwozdz Decl., Exh. B, *compare* figures 1-5 (conventional MOS) with figures 6-10 (DMOS).



Conventional MOS structure
('075 Patent, Fig. 1)



DMOS structure
(Colak Patent, Fig. 1)

Power Integrations now attempts to limit the scope of its broad disavowal to DMOS structures fabricated using one particular process by defining "DMOS" as "a device formed by successive diffusions of different material through the same opening in an insulating or mask layer." In other words, Power Integrations would require that the more highly doped channel or

[3] The "++" in the p++ channel diffusion region of figure 1 of Colak depicted below signifies a higher doping concentration.

body region and the source pocket of the DMOS structure be formed through a single opening or mask. This construction is wrong for several reasons. First, Colak is not so limited. Colak describes and claims the DMOS structure but does not, as Power Integrations' asserts, set forth any process for achieving that structure. The channel and source regions shown in Colak could be achieved through successive or simultaneous diffusions or implantations through one or more masks or openings – as long as the structure shown is achieved, the process used is irrelevant.

In fact, nowhere in the intrinsic record is Power Integration's disavowal of DMOS structures limited to a particular process for fabricating those structures. Power Integrations ignores the best evidence of the scope of its disavowal: the applicant's own statements disclaiming DMOS structures because the source pocket and channel region are not formed directly within the substrate as in a conventional MOS. Instead, Power Integrations improperly attempts to use an extrinsic dictionary definition to contradict the prosecution history. This is wrong as a matter of law. *Phillips*, 415 F.3d at 1319 (improper to resort to extrinsic dictionaries if the claim can be understood from the intrinsic record).

Power Integrations further erroneously asserts that DMOS was defined "differently" in 1988 than it is today, and that the only method for constructing DMOS in 1988 was by successive diffusions through a single mask, neither of which is true. Power Integrations offers no evidence to support this position other than the self-serving testimony of its own expert and a disfavored extrinsic dictionary definition that simply provides one example of a DMOS process available in 1988. It has not met its burden of proof. To the contrary, the wealth of intrinsic and extrinsic evidence (including testimony of the inventor) demonstrates that various processes for forming DMOS structures were available in 1988 and that those processes did not all require successive diffusion through a single opening or mask.

In any event, this dispute over extrinsic evidence misses the point of claim construction. The Court does not have to weigh the reliability of either party's extrinsic evidence. Rather, the intrinsic evidence unambiguously defines the scope of Power Integrations' disavowal as "DMOS" structures in which the source is formed entirely within a more heavily doped body

region that also forms the channel, rather than directly within the substrate, and does not restrict it to one process for making that structure. Power Integrations should not be allowed to recapture this disavowed scope by defining "DMOS," which Power Integrations' own definition concedes is a device, in terms of ***how that device is made*** (i.e., successive diffusions through a single opening), rather than in terms of ***what that device is*** (i.e., a MOS structure where the source pocket is formed in a more heavily doped channel region). Since the '075 Patent describes and claims a structure, not a process, "DMOS" must be defined according to the resultant structure rather than a particular process for fabricating that structure.

A. Power Integrations Disclaimed DMOS Structures During Prosecution.

1. Power Integrations admits that it disclaimed DMOS structures during prosecution to avoid the prior art.

The parties agree that DMOS is "the most important term in dispute." PI Brief, p. 1. The parties also agree that Power Integrations disclaimed coverage of DMOS structures. "What ***Power Integrations specifically distinguished during prosecution were the DMOS devices*** (shown specifically in the prior art of record) that existed at the time and were entirely different from… the claimed invention…." PI Brief, p. 27 (emphasis added); *see also* PI Brief, p. 1 ("Power Integrations ***does not dispute that it disclaimed coverage of the DMOS prior art distinguished during prosecution***.") (emphasis added). Power Integrations admits that it distinguished ***DMOS devices*** and not a particular ***process of making*** DMOS devices. PI Brief, p. 1 ("[In 1987], the terminology 'DMOS'… applied to a transistor ***structure***…."); PI's Brief, p. 27 ("Thus, ***the precise definition of a "DMOS" device is a device***….") (emphasis added). Because Power Integrations disclaimed DMOS devices and not a process, the process used to form DMOS is not relevant, and should not be read into the claims of the '075 Patent.

Power Integrations further admits that it disclaimed DMOS to get around the DMOS ***structure*** disclosed in the Colak reference. "Power Integrations… specifically distinguished the claimed invention over the prior art Colak reference which showed a double-diffused ***structure*** that was consistent with the plain meaning of DMOS in 1988…." PI Brief, p. 32 (emphasis

added). The Colak reference, like the '075 patent, claims a device structure, not a process for making that structure. Indeed, Power Integrations admits that the defining feature of the DMOS structure disclosed in Colak is the "source diffusion region completely within a channel diffusion region" and "that the channel region itself... is formed by the first diffusion." PI Brief, pp. 28-29. Power Integrations, however, misleadingly suggests that the source and body regions of Colak were necessarily created with two sequential diffusions through the same opening. *Id.* This is not true. Nothing in the Colak reference requires that the claimed DMOS structure is "constructed with two sequential diffusions through the same opening" as Power Integration's suggests. Gwozdz Decl., ¶ 4. It is disingenuous for Power Integrations to admit that it disclaimed ***DMOS structures*** to avoid the structure disclosed in the Colak reference, and then ask the Court to construe its disavowal as limited to a particular ***process for forming*** the DMOS structure, particularly where that process was not mentioned in the disavowal or in the prior art Power Integrations was seeking to overcome.

2. **Fairchild and the public are entitled to rely upon Power Integrations' disavowal of DMOS Structures.**

In its statements to the Examiner, Power Integrations specifically disclaimed the DMOS structure of Colak on the basis that the source and channel are not formed "within the substrate" as in a conventional MOS. Power Integrations did not disclaim Colak on the basis that the channel and source regions are formed by sequential diffusions through the same opening. *See* Exh. G, Amd (4/7/88); Exh. H, Amd after Final (8/12/88). Power Integrations must be held to its disavowal during prosecution and cannot now recapture DMOS structures where the channel and source regions are formed through separate masks. *See Chimie v. PPG Indus.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005) ("The purpose of consulting the prosecution history in construing a claim is to exclude any interpretation that was disclaimed during prosecution.") (internal quotes omitted); *see also Spring Windows*, 323 F.3d at 995 ("The public notice function of a patent and its prosecution history requires that a patentee be held to what he declares during the prosecution of his patent.").

Competitors reviewing the '075 Patent would see the express disavowal of DMOS structure and understand that the claims of the '075 Patent do not cover a structure in which the source pocket is created entirely within a heavily doped channel region regardless of the process used to achieve that structure. Indeed, Fairchild, relied upon Power Integrations' unambiguous disavowal of DMOS structures (and the other intrinsic evidence) before designing the accused devices. Exh. AA, Jeon Depo. 37:19-41:22. "Competitors are entitled to review the public record, apply the established rules of claim construction, ascertain the scope of the patentee's claimed invention and, thus, design around the claimed invention." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996).

B. The Intrinsic Evidence Defines The Disclaimed "DMOS" As A Structure In Which The Source Is Formed Entirely Within A More Heavily Doped Channel Region Rather Than Within The Substrate.

The applicant expressly indicated what it meant by "DMOS" in its statements to the Examiner:

> Claim 19 [which issued as claim 1] also provides for a pair of laterally spaced source and drain contact pockets within the substrate as is customary for conventional MOS transistors and is thus, distinguished from DMOS devices which require a higher threshold voltage.

See Exh. G, Amd (4/7/88), p. 6 (emphasis in original). In this passage, the applicant distinguished DMOS from conventional MOS on the basis that in conventional MOS transistors the source is "within the substrate." The applicant added the phrase "within the substrate" to its claims in order to overcome the DMOS structure disclosed in the Colak reference in which the source is entirely within a more heavily doped channel region rather than within the substrate. Gwozdz Decl., Exh. A, ¶¶ 27-37 Because this channel region is more heavily doped than the substrate of a conventional MOS device it results in a higher threshold voltage, as also indicated in the passage above. *Id.* at ¶ 29.

The applicant similarly distinguished the conventional MOS structure from Colak's DMOS structure on the basis that in the conventional MOS device the substrate forms the channel region through which current flows from the source to the drain:

> Claim 19 [which issued as claim 1] further provides for a substrate having a surface, and insulating layer on the surface of the substrate covering at least that portion between the source contact pocket and the nearest surface-adjoining position of the extended drain region, and a gate electrode on the insulating layer electrically isolated from the substrate region thereunder which forms a channel laterally between the source contact pocket and the nearest surface-adjoining position of the extended drain region. Thus, claim 19 [which issued as claim 1] is limited to a MOS or MOSFET structure, while Colak shows a D-MOS device.

Exh. H, Amd after Final (8/12/88), p. 3. In a DMOS structure the more highly doped body region in which the source pocket is formed also forms the channel of the device.[4] *See* Gwozdz Decl., Exh. A, ¶¶ 26-29.

It is clear from both of the above passages that Power Integrations disclaimed the DMOS structure and not a particular process for fabricating that structure. Indeed, Power Integrations did not, and could not, have successfully argued that its claims were distinguished from Colak based on successive diffusions through a single opening. Not only is Colak silent as to the process by which its DMOS structure is formed, such an assertion would have been irrelevant because the claims at issue did not include any processing steps.

Power Integrations misguidedly chastises Fairchild for relying on the intrinsic record instead of providing an extrinsic definition from a "dictionary or treatise." PI Brief, p. 29, note 16. The Federal Circuit has held that extrinsic evidence is less reliable than the intrinsic record in determining how to read claim terms. *Phillips*, 415 F.3d at 1314-18. In this case, the scope of the applicants' disavowal is clear from the intrinsic evidence (i.e., the applicants' own statements, combined with the Colak reference the applicant was seeking to overcome) and it is unnecessary to resort to extrinsic evidence other than to elucidate this intrinsic evidence for those of less than ordinary skill in the art. For that reason, Fairchild offers the attached declaration, report and tutorial by Dr. Gwozdz.

C. Power Integrations Improperly Relies Upon Extrinsic Evidence In An Attempt To Recapture The Disavowed DMOS Structures.

Power Integrations completely ignores its own statements to the examiner regarding the

[4] Power Integrations apparently attempts to argue that in its preferred embodiment the channel is not "within the substrate" because it depicts subsequently doping the channel region as indicated by the dotted line regions 23 and 24 in Figure 1 shown above. Power Integrations did not claim regions 23 and 24 in any of the claims of the '075 patent and they are irrelevant to the discussion at hand.

scope of its disavowal, as well as the other intrinsic evidence, and instead relies upon disfavored extrinsic evidence to attempt to recapture what it gave up. In particular, Power Integrations asserts, based solely on the self-serving testimony of its expert and one particular dictionary definition, that "DMOS" had a different meaning in 1988 than it does today. Such reliance upon extrinsic evidence to alter the intrinsic record, rather than to simply clarify it, is wrong as a matter of law. *Pitney Bowes*, 182 F.3d at 1309.

1. Power Integrations relies upon expert testimony that contradicts the intrinsic evidence.

Power Integrations relies almost solely on the testimony of its expert, Michael Shields, to recapture all DMOS structures that are not formed by successive diffusions through the same opening. Not only are Mr. Shields' assertions largely unsupported, they are at odds with the applicant's use of "DMOS" during prosecution of the patent as well as with the other intrinsic evidence (Colak and Sze). As discussed above, the intrinsic record contains no such limitation. Accordingly, under Federal Circuit precedent, the Court should discount Mr. Shields' testimony:

> [C]onclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court. Similarly, a court should discount any expert testimony that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent.

Phillips, 415 F.3d at 1318 (internal citations omitted).

Mr. Shields' report was generated solely for purposes of litigation, and solely to aid Power Integrations' attempts to construe its claims to read on Fairchild's accused products. Accordingly, it is inherently less reliable than the intrinsic evidence. *See id.* ("[E]xtrinsic evidence consisting of expert reports and testimony is generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence.").

Mr. Shields' testimony impermissibly changes the scope of the Power Integrations' disavowal that the public has come to rely upon. *Id.* at 1319 ("[U]ndue reliance on extrinsic evidence poses the risk that it will be used to change the meaning of claims in derogation of the indisputable public records consisting of the claims, the specification and the prosecution history,

thereby undermining the public notice function of patents.") (internal citations omitted). Therefore, Mr. Shields' testimony should be disregarded for purposes of construing "DMOS."

In contrast, the testimony provided by Fairchild's expert, Dr. Gwozdz, relies upon and is in accord with the intrinsic record. *See* Gwozdz Decl., ¶ 2. Dr. Gwozdz explains that the DMOS devices described in the intrinsic evidence were not limited to a process utilizing successive diffusion through a single opening or mask; rather this was but one method used to make DMOS structures. Each of the disclosed DMOS structures does, however, have the source pocket entirely within a more heavily doped channel region, rather than within the substrate, which was the basis on which Power Integrations distinguished DMOS. It was this structure that was commonly understood as DMOS in 1988, and today. Since more than one process was available to form DMOS at that time, one of ordinary skill in the art would not have defined DMOS as requiring successive diffusions through the same opening.

2. **Power Integrations attempts to use an extrinsic dictionary definition to limit the scope of its disavowal.**

The only other evidence upon which Power Integrations purports to rely is *The Penguin Dictionary of Electronics*, 2d ed. (1988), p. 129. The Federal Circuit has made it clear that it is improper to use dictionary definitions to alter the meaning of terms set forth in the intrinsic record. As the Court stated "[a] claim should not rise or fall based upon the preferences of a particular dictionary editor, or the court's independent decision, uninformed by the specification, to rely on one dictionary rather than another." *Phillips*, 415 F. 3d at 1322.

Power Integrations appears to argue that the weight to be given the Penguin dictionary is somehow elevated because it was cited by Fairchild's opinion counsel in an opinion issued on May 6, 2005.[5] Power Integrations cites to no legal authority to support this position because there is none – the fact that the dictionary was cited by opinion counsel does not change the fact that it cannot be used to alter the intrinsic evidence. Nor does Power Integrations cite any legal

[5] Power Integrations attempts to mislead the Court in its opening brief by asserting that Fairchild's opinion counsel agreed that the accused structure is not a DMOS structure as that term was understood in 1988. PI Brief, p. 1. Fairchild's opinion counsel said no such thing.

authority that would suggest that positions taken by Fairchild's opinion counsel should be considered binding admissions by Fairchild.

Moreover, Power Integrations ignores the fact that Fairchild's opinion counsel issued a second opinion relying solely on intrinsic evidence specifically to adhere to the recent *Phillips* decision.[6] When Fairchild's opinion counsel rendered its initial May 5 opinion, the controlling authority was *Texas Digital Systems, Inc. v. Telegenix, Inc.*, in which the Federal Circuit held that certain extrinsic references such as dictionaries and treatises were particularly useful resources in assisting courts during claim construction. 308 F.3d 1193, 1202 (Fed. Cir. 2002). Following *Texas Digital*, parties and courts frequently resorted to dictionaries to construe claim terms and it was entirely appropriate for Fairchild's opinion counsel to do so as well. Subsequently, on July 12, 2005, the Federal Circuit issued its *en banc* ruling in *Phillips*, criticizing the use of extrinsic dictionaries over intrinsic evidence and dictating that intrinsic evidence must serve as the foundation for construing claim terms. On September 22, Fairchild's opinion counsel issued a supplemental opinion letter specifically to adhere to the *Phillips* decision by relying on solely the intrinsic evidence rather than the extrinsic Penguin Dictionary.

Moreover, just because the *Penguin Dictionary* describes one method for fabricating a DMOS structure does not mean that there were not other well known methods of fabricating DMOS structures in 1988. In fact, the intrinsic Sze reference describes other methods for fabricating DMOS structures. *See* Gwozdz Decl., ¶ 6 and Exh. E (Sze). Other extrinsic evidence also consistently demonstrates that those of ordinary skill in the art would have understood that DMOS structures could be fabricated in various different ways.[7] Gwozdz Decl, ¶ 5, Exh. B, ¶¶ 32-34 and Exh A, ¶¶ 17-24.

For example, a 1986 article entitled "A Novel CMOS-Compatible High-Voltage Transistor Structure", by Zahir Parpia et. Al., IEEE Transactions on Electron Devices, ED-33,

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[6] Both opinions issued by Fairchild's opinion counsel discussed the intrinsic Sze and Colak references, a fact also conveniently omitted from Power Integrations' opening claim construction brief.

[7] It is important to note that this extrinsic evidence is consistent with the intrinsic evidence and is proffered to rebut Power Integrations' use of contradictory extrinsic evidence.

Dec. 1986, page 1948 ("Parpia") describes making a DMOS structure through a different process. Gwozdz Decl., Exh. G. Figure 1 of the Parpia article shows a DMOS structure, i.e., with the source entirely within a more heavily doped channel region rather than directly within the substrate.[8] Parpia explains in footnote 1 that the structure was not fabricated using a double diffused process. The article explains that instead of diffusing both the N+ source and the P body through the same opening, the N+ source and the P body are diffused through different openings. Parpia teaches separate diffusions using separate masks, and not "successive diffusions of different materials through the same opening in an insulating or mask layer," as Power Integrations' proposed construction requires. The Parpia process is different, but the structure achieved is a DMOS structure. Power Integrations is thus wrong when it claims that in 1988 there was only one process for forming DMOS structures.

3. The Inventor's own testimony refutes Power Integrations' assertion that "DMOS" required diffusion through the same opening.

The Federal Circuit has held that inventor testimony is extrinsic evidence. Here, Fairchild cites the deposition testimony of Klas H. Eklund, the sole inventor named on the '075 Patent, only to rebut Power Integrations' assertion that in 1988 "DMOS" required successive diffusion through a single opening. Mr. Eklund testified that, as Fairchild has stated, in 1988 it was understood that "DMOS" was a structure that could be formed through different processes:

Q. Do you have any recollection that, during that time frame [1985 to 1987], DMOS simply referred to the creation of an n-channel by subsequent diffusions of alternative conductivity type?

A. Yes.

Q. Could DMOS also refer to a situation in which the same implant mask was used?

A. Yes.

Q. Were both of those definitions used during this time frame?

A. I think so, but it was more or less, historically, it was doing the same mask. But, even at that time, control of photolithographic equipment was good enough, so you could really split it and you could still call it a

[8] The devices are called LDMOS, or lateral DMOS, because the drain diffusion region is on the surface of the device and the current flows laterally as opposed to devices where the drain is on the back side of the chip and the current flows vertically.

DMOS. More or less I could say the DMOS would just stand for ability to handle high voltage.

Q. So one definition of DMOS is simply the ability to handle high voltage?

A. Yes. I think this is about the definitions today, I could say.

Q. Okay, well, I'm referring back to approximately the time of 1985 to 1987.

A. Yes.

Exh. Z, Deposition of Klas Eklund, 98:15-99:14. Mr. Eklund admits that it was well-known in the art that a single mask was not required for a structure to be a DMOS structure. He agrees that back at the relevant time. those skilled in the art generally know that "DMOS simply referred to the creation of an n-channel by subsequent diffusions of alternative conductivity type." He agrees that, at the time the '075 Patent was filed, a definition of DMOS as "the ability to handle high voltage" was another valid definition. The inventor's own testimony rebuts the assertion that "DMOS" required diffusion through the same opening in 1988.

D. Power Integrations Attempts To Construe "Substrate" To Include The More Heavily Doped Channel Region To Recapture What It Gave Up.[9]

Power Integrations' proposed construction of "substrate" is wrong because it includes "subsequently formed or doped regions such as a well region," in an attempt to recapture the DMOS structure it disclaimed. As discussed above during prosecution, Power Integrations amended its claims to specifically require that the source and channel of its conventional MOS device are formed "within the substrate" in order to distinguish them from the DMOS structure of Colak in which the source is formed entirely within a more heavily doped channel region. Power Integrations is now trying to recapture what it gave up by construing substrate to include the more heavily doped DMOS body region in which the source and channel are formed so that its claims will once again read on a DMOS structure.

If it were true that "substrate" could include such subsequently formed or doped regions in which a portion of the transistor is constructed, then the source and channel of the Colak structure would be "within the substrate" and Power Integrations would not have distinguished

[9] The parties dispute how "substrate" should be construed for both of the terms "substrate" and "a pair of laterally spaced pockets of semiconductor material of a second conductivity type within the substrate."

Colak. The claims of the '075 Patent must be construed to avoid the prior art Colak reference. To avoid the Colak reference, the applicant specifically required that the source pocket must be within the original substrate material. The definition of "substrate" must therefore exclude a subsequently formed or doped channel region.

It is clear that Power Integrations' attempt to construe "within a substrate" to include the more heavily doped DMOS channel region in which the DMOS source pocket is formed is litigation induced. The fact that this argument was contrived to recapture what was given up is aptly illustrated by comparing the '075 patent with U.S. Patent No. 5,146,298, a DMOS structure patent filed by the applicant a few years after the '075 patent. The '298 patent refers to the '075 patent as follows:

> An efficient and simplistic way to incorporate a thin layer lateral high voltage MOS transistor which constitutes a series combination of a normal MOS transistor ***(not D-MOS)*** and a double-sided JFET is described in U.S. Patent Number 4,811,075 issued to Klas H. Eklund for High Voltage MOS Transistors.

Exh. Y, '298 Patent, 1:37-45 (emphasis added). In contrast to the '075 patent, which claims a "normal MOS transistor" where the source region is "within the substrate," the '298 patent claims a DMOS transistor where the source region is "within the body region." *Id.*, '298 Patent, 1:68-2:5, 8:25-28. The '298 patent further specifies that the channel region is in a portion of the body region. *Id.*, '298 Patent, 4:67-68. It is disingenuous for Power Integrations to argue that this structure is covered by the '075 patent.

Moreover, during the prosecution of the '075 Patent, Power Integrations chose to act as its own lexicographer, and amended the specification specifically to define "substrate" as "the physical material on which a microcircuit is fabricated." '075 Patent, 4:55-57. The Federal Circuit has held that when the specification gives a special definition to a claim term, that definition must govern, and that when the specification reveals a disavowal of claim scope, that disavowal is dispositive:

> Consistent with that general principle, our cases recognize that the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. ***In such cases, the inventor's lexicography governs.*** In other cases, the specification may reveal an ***intentional***

> ***disclaimer, or disavowal***, of claim scope by the inventor. In that instance as well, the inventor has dictated the correct claim scope, and the inventor's intention, as expressed in the specification, ***is regarded as dispositive***.

Phillips, 415 F.3d at 1316 (internal citations omitted).

Further, Power Integrations added an intentional disclaimer when it specifically defined "secondary substrate" to mean something different than "substrate." Power Integrations added the definitions of "substrate" and "secondary substrate" to the specification in order to differentiate those terms, knowing that only the term "substrate" was used in the claims. By defining "secondary substrate" as being a subsequently formed or doped region such as a well, Power Integrations intentionally disclaimed such features from being included in "substrate." This disclaimer is dispositive, and must be read into "substrate."

In support of its proposed construction, Power Integrations relies only upon disfavored expert testimony and an extrinsic dictionary definition. PI Brief, pp. 31-32. Such extrinsic evidence should not be considered when the patentee plainly acts as its own lexicographer.

E. Fairchild's Proposed Definition Does Not Exclude The Preferred Embodiment Of The '075 Patent.

Power Integrations argues that Fairchild's construction of "DMOS" would result in the exclusion of the preferred embodiment of the '075 Patent, and that such a construction is incorrect. This argument is wrong for two reasons. First, Power Integrations admits that Figure 1 of the '075 Patent is the preferred embodiment. PI Brief, p. 31. Figure 1, however, is not a DMOS because the source is not formed entirely within a more heavily doped channel region.

Second, there is no rule prohibiting a patentee from disclaiming the preferred embodiment in order to overcome the prior art. Claims can be construed to exclude the preferred embodiment when their scope has been narrowed to gain allowance during prosecution:

> Limitations may be construed to exclude a preferred embodiment if the prosecution history compels such a result.... [T]he fact that claims do not cover certain embodiments disclosed in the patent is compelled when narrowing amendments are made in order to gain allowance over prior art.

N. Am. Container, Inc. v. Plastipak Packaging, Inc., 415 F.3d 1335, 1346 (Fed. Cir. 2005). The Federal Circuit has even held that the preferred and ***only embodiment*** of the patent must be

excluded if it is disclaimed in the prosecution history. *Elekta Instrument S.A. v. O.U.R. Sci. Int'l, Inc.*, 214 F.3d 1302, 1308 (Fed. Cir. 2000).

Power Integrations chose to narrow its claims by specifically disclaiming DMOS structures in which the source and channel regions are not formed directly "within the substrate" in order to get the claims of the '075 Patent allowed over the DMOS structure disclosed in Colak. If in so doing it disclaimed the preferred embodiment, then that was Power Integrations' choice in order to preserve the validity of its claims. Power Integrations cannot construe the claims to recapture what was specifically disavowed merely because the claims no longer read on the preferred embodiment.[10]

F. Claim Terms Other Than Those That Require Construction Of The Disavowed DMOS Structure.

As stated above, "DMOS" should be excluded from the claims of the patents, and Fairchild's opening claim construction brief discusses the particular claim elements impacted by this disavowal. The following discusses claim terms that the parties dispute that do not involve DMOS. As Fairchild has made its point regarding DMOS above, for purposes of brevity it only discusses the non-DMOS related disputes here.

1. "said top layer of material"

Power Integrations proposes that "said top layer of material" be construed as the "surface adjoining layer." This construction is wrong for the simple fact that "surface adjoining layer" is already part of the claims. It is vague, ambiguous and confusing for two different terms to mean the same thing in the same claim.

To support its argument, Power Integrations cites to portions of the specification that refer to feature 27 of Figure 1. This does not cure the fact, however, that the term as written lacks antecedent basis.

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[10] Importantly, Power Integrations' proposed construction does not disclaim DMOS. Its construction therefore does not exclude the prior art Colak reference. Such a construction must be wrong. The terms of the '075 Patent must be construed to avoid the Colak reference.

2. "being subject to application of a reverse-bias voltage"

Power Integrations' confusingly offers a definition that it admits is not accurate. Power Integrations admits that "a voltage applied across a rectifying junction with a polarity that provides a high-resistance path" is the more technically accurate definition of reverse-bias voltage. PI Brief, p. 34. However, the construction offered by Power Integrations is "the surface adjoining layer of material and the substrate recited in the claims are connected in some way to 'ground'" apparently because it believes the jury can more readily understand this less accurate definition *Id.*

Nothing in the intrinsic evidence supports a construction that requires the top layer or surface adjoining layer being connected to ground. The specification in fact states that the top layer does not have to be connected to ground. "The top layer is either connected to the substrate or left floating." Col. 2:61-63. Power Integrations' construction is therefore wrong.

IV. U.S. PATENT NO. 6,107,851 – "FREQUENCY VARIATION SIGNAL."

The key dispute for the '851 Patent is the construction of the term "frequency variation signal."[11] Fairchild believes that, consistent with Federal Circuit precedent and the intrinsic evidence, this term should be given its plain and ordinary meaning – *i.e.*, a signal used to vary the frequency of the oscillation signal. *Housey Pharms., Inc. v. Astrazeneca UK Ltd.*, 366 F.3d 1348, 1352 (Fed. Cir. 2004) ("If there is a discernable plain and ordinary meaning of the claim language, then this meaning usually defines the scope of the claims unless the patentee has explicitly disclaimed or clearly disavowed this meaning in the specification or prosecution history."). In contrast, Power Integrations improperly seeks to import limitations into this claim in an attempt to avoid the prior art.

A. "Frequency Variation Signal" of the '851 and '366 Patents Must Be Construed In Light Of The Intrinsic Evidence.

"The claim construction inquiry... begins and ends in all cases with the actual words of the claim." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir.

[11] This term also appears in dependant claims 5 and 14 of the '366 Patent.

1989). Here, the asserted claim, itself, indicates what is meant by the term "frequency variation signal." First, the frequency variation signal is provided by the frequency variation circuit:[12]

> a frequency variation circuit that provides a frequency variation signal....

'851 Patent, Claims 1 and 11; '366 Patent, Claims 4 and 16. Second, the claimed "frequency variation signal" causes the oscillation signal provided by the oscillator to vary within a frequency range:

> an oscillator that provides an oscillation signal having a frequency range, said frequency of said oscillation signal varying within said frequency range according to said frequency variation signal....

Id. According to the claims, the "frequency variation signal" is, thus, simply a signal used to vary the frequency of the oscillation signal. Horowitz Decl. ¶ 4.

This plain and ordinary meaning of "frequency variation signal" is confirmed by the specification and prosecution history of the '851 Patent – the two additional sources of intrinsic evidence. For instance, during prosecution the Examiner determined that circuit **140** and signal **135** depicted in "Prior Art" Figure 1 of the '851 Patent constituted the claimed frequency variation circuit and signal. *See* Exh. P, Office Action (12/13/99), p. 4. The Examiner reached this conclusion because the specification of the '851 Patent specifically states that this prior art circuit and signal varies the frequency of the oscillation signal. *Id.* ("Applicants' Prior Art Fig. 1 shows... a frequency variation circuit 140 as recited in claim 29 [which issued as claim 11]"); *see* '851 Patent, 3:9-37.

Since the intrinsic evidence is in accord with the plain and ordinary meaning of the term, the Court should construe "frequency variation signal" to be "a signal used to vary the frequency of the oscillation signal."

B. The Court Should Not Read In Limitations Not Found In The Claims of the '851 and '366 Patents.

Power Integrations ignores both the plain meaning of "frequency variation signal" and the intrinsic evidence. Instead, Power Integrations seeks to add limitations from the

[12] The parties agree that the claimed "frequency variation circuit" is simply "a structure that provides the 'frequency variation signal.'"

embodiments discussed in the specification of the '851 Patent. This is wrong as a matter of law:

> Though understanding the claim language may be aided by the explanations contained in the written description, ***it is particularly important not to import into a claim limitations that are not part of the claim. For example, a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment.***

Resonate, 338 F.3d at 1364-1365 (emphasis added).

Since Power Integrations' proposed construction is not only unsupported but, in fact, directly contradicted by the intrinsic evidence, it must be rejected. "It is improper to import a limitation into a claim where the limitation has no basis in the intrinsic record." *Seachange Int'l, Inc. v. C-Cor Inc.*, 413 F.3d 1361, 1376 (Fed. Cir. 2005); *see also* Horowitz Decl. ¶ 4.

1. **The "Frequency Variation Signal" need not be internal.**

Power Integrations' construction demands an "internal" frequency variation signal. This is simply not required by the claims. Had Power Integrations sought to limit its claims in such a fashion it could have done so simply by claiming "a frequency variation circuit that provides an ***internal*** frequency variation signal." Power Integrations decided, however, to broadly claim all frequency variation signals – either internal or external to the PWM device. Having made that decision, Power Integrations cannot now narrow its claims in an effort to preserve their validity.

Indeed, the specification of the '851 Patent describes both internal and external frequency variation signals. *Compare* internal signal **(400)** shown in Figures 3, 6, and 9 with external signal **(135)** shown in Figure 1. Further, Power Integrations' proposed construction would deliberately exclude the external frequency variation signal **135** generated by external frequency variation circuit **140** as shown in Figure 1 of the '851 Patent. During prosecution, however, the Examiner specifically stated (and Power Integrations did not dispute) that this frequency variation signal and circuit was covered by Power Integrations' claims. Exh. P, Office Action (12/13/99), p. 4. Since Power Integrations' proposed construction is contrary to this intrinsic evidence, it must be rejected. *See Pitney Bowes*, 182 F.3d at 1309.

2. **The "Frequency Variation Signal" need not vary cyclically.**

The second limitation that Power Integrations seeks to import is that the "frequency

variation signal" "cyclically varies in magnitude during a fixed period of time." *See* Exh. B. This is expressly contrary to the specification of the '851 Patent, which indicates that the frequency variation signal can be any signal (including non-cyclic signals) that varies in magnitude during a fixed period of time:

> The frequency variation signal **400**, is presently preferred to be a triangle waveform that preferably oscillates between four point five (4.5 volts and one point five (1.5) volts. Although the presently preferred frequency variation signal **400** is a triangle waveform, ***alternative frequency variation signals such as ramp signals, counter output signals or other signals that vary in magnitude during a fixed period of time may be utilized as the frequency variation signal.***

'851 Patent, 6:31-38 (emphasis added). These "alternative frequency variation signals" do ***not*** necessarily vary cyclically in magnitude.

The '851 Patent's prosecution history confirms that the frequency variation signal need not be cyclic. Even though frequency variation signal **135** generated by frequency variation circuit **140** may not be cyclic, the Examiner determined (and Power Integrations did not dispute) that frequency variation circuit **140** was the claimed frequency variation circuit. Exh. P, Office Action (12/13/99), p. 4.

Power Integrations' limitation that the frequency variation signal vary cyclically is contrary to the intrinsic evidence. Thus, it must be rejected. *Pitney Bowes*, 182 F.3d at 1309.

3. **The "Frequency Variation Signal" need not modulate the frequency of the oscillation signal within a predetermined range.**

The final limitation that Power Integrations seeks to import into the claims is that the "frequency variation signal" be "used to modulate the frequency of the oscillation signal within a ***predetermined*** frequency range." *See* Exh. B (emphasis added). There is no basis – and no support in the intrinsic evidence – to require that the frequency range be "predetermined". To the contrary, the claims only require that the oscillation signal vary within a frequency range. *See* '851 Patent, Claims 1 and 11, '366 Patent, Claims 5 and 14. Had Power Integrations intended to require that the oscillation signal vary with in ***predetermined*** frequency range, it could have so limited the claim but it did not.

Further, the specifications of the '851 and '366 Patents make clear that the frequency

variation signal can vary the frequency of the oscillation signal in any fashion – including varying in a range that is not "predetermined." "The jitter current **135** is used to vary the frequency of the saw-toothed waveform generated by the oscillator contained in the pulse width modulated switch **90**." '366 Patent, 3:23-26.

Power Integrations seeks to require that the frequency range be "predetermined" in order to later argue that resistor **(140)** is not a frequency variation circuit. The prosecution history, however, makes clear that resistor **(140)** is a frequency variation circuit. Exh. P, Office Action (12/13/99), p. 4. Any construction that is contrary to this intrinsic evidence must be rejected.

C. The Fact That Power Integrations' Claims Are Invalid Is No Reason To Reject Fairchild's Proposed Construction.

Rather than address the intrinsic evidence or the merits of Fairchild's proposed construction, Power Integrations argues that Fairchild's constructions should be rejected out of hand because, if properly construed, the claims are invalid in light of the prior art. *See* PI Brief, p. 23. This is a red-herring. Indeed, a Court should typically not consider issues of infringement or invalidity when construing the claims. *See Boss Control, Inc. v. Bombardier Inc.*, 410 F.3d 1372, 1376 (Fed. Cir. 2005) (two step process; first claims are construed, then invalidity and noninfringement considered). The fact that Power Integrations admits that its claims are invalid if given Fairchild's proposed construction is simply a reason to invalidate the claims, not a reason to reject the intrinsic evidence.

1. Since the claims are not ambiguous, the Court should not read limitations into them in an effort to preserve their validity.

While claims should be construed to preserve their validity, this rule only applies if the claims are ambiguous and the Court is selecting between two equally valid constructions:

> While we have acknowledged the maxim that claims should be construed to preserve their validity, we have not applied that principle broadly, and we have certainly not endorsed a regime in which validity analysis is a regular component of claim construction. Instead, we have limited the maxim to cases in which the court concludes, after applying all the available tools of claim construction, that the claim is still ambiguous.

Phillips, 415 F.3d at 1327. As discussed above, the meaning of "frequency variation signal" is

clear from the language of the claims itself, and that plain meaning is supported by the specification and prosecution history. The additional limitations proposed by Power Integrations are not necessary to clarify any ambiguity and in fact are contrary to the intrinsic evidence, which supports the broader language as written. Since the claims are not ambiguous and the constructions are not equally possible (Fairchild's proposed construction is required by the intrinsic evidence while Power Integrations' proposed construction is directly contrary to such evidence), the Court should not let the ultimate invalidity of the claims prevent it from construing them in accordance with the intrinsic evidence. Indeed, were courts to construe claims so as to always preserve their validity, no claim would ever be found invalid.

2. **Power Integrations' claims are invalid in light of the prior art.**

Properly speaking, the invalidity of Power Integrations' claims has no bearing on the entirely separate and initial question of how those claims should be construed. *See Boss Control*, 410 F.3d at 1376. Since Power Integrations blurred the two topics in its initial brief by seeking to read in limitations in order to preserve the validity of its claims, however, it is necessary for Fairchild to respond. As shown below, Power Integrations mislead the Examiner regarding the content of the admitted prior art during the prosecution of the '851 and '366 Patents. It was Power Integrations' incorrect statements that resulted in the issuance of claims that are invalid in light of the admitted prior art illustrated in Figure 1 of the '851 and '366 Patents and described in their specifications. Power Integrations chose to mislead the Examiner so that it could keep its overly broad claims rather than to incorporate into those claims the limitations it now asks this Court to impose. It is improper for Power Integrations to seek to give up scope during litigation that it would not relinquish during prosecution.

Rather than address this point, Power Integrations mocks it: asking the Court to "apply the well-settled 'it makes absolutely no sense' principle" and suggesting that Fairchild believes the Examiner to be "incompetent and foolish." PI Brief, p. 20. The issue, however, is serious. But for Power Integrations' inequitable conduct, the asserted claims would never have issued. When the Court sees Power Integrations' deception, it will be clear that Power Integrations'

patents are not only invalid but also unenforceable due to Power Integrations' misconduct.

a. The Examiner initially rejected Power Integrations' claims as anticipated by the admitted prior art shown in Figure 1 of the '851 and '366 Patents.

When Power Integrations filed the application leading to the '851 Patent, it included claims directed to separate frequency variation and soft start "inventions". *See* Exh. V, '851 Patent Application. The Examiner issued a restriction requirement and Power Integrations elected to proceed with the frequency variation claims.[13] After this restriction requirement, there were only two independent claims pending – claim 1 (a PWM switch) and claim 29 (a regulation circuit). These claims were essentially identical except that claim 1 required an oscillator element that was omitted from claim 29. *Compare* Exh. V, Claims 1 and 29.[14]

The Examiner considered claim 29 and rejected it as anticipated by the prior art illustrated in Figure 1 of the '851 Patent and discussed in the patent's specification:

> ***Claim Rejections – 35 U.S.C. § 102***
>
> * * *
>
> 5. Claims 29, 35 & 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicants' Prior Art Fig. 1.
>
> Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 as recited in claim 29.

Exh. P, Office Action (12/13/99), p. 4.[15] At the same time, the Examiner allowed claim 1 because he believed that the admitted prior art did not disclose the oscillator element required by that claim:

> ***Allowable Subject Matter***
>
> 8. The prior Art of record does not appear to disclose or suggest a PWM switch comprising an oscillator for generating a maximum duty cycle signal and a singnal [sic] with a frequency range dependant on a frequency variation circuit as recited in claim 1.

Id., p. 5.

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[13] Power Integrations '366 Patent was a divisional application directed to the soft start circuit claims.

[14] Initially, the drive circuit of claim 29 differed slightly from the drive circuit of claim 1. Power Integrations later amended the drive circuit of claim 29 to reduce this difference. Exh. W, Amendment and Response, p.3.

[15] The Examiner also rejected claims depending from claim 29 as anticipated or rendered obvious by the admitted prior art. Exh. P, Office Action (12/13/99), pp. 4-5.

Thus, the Examiner made clear that the "frequency variation circuit" and "frequency variation signal" were in the admitted prior art and that the only reason any claims were allowed was the inclusion of the oscillator element. Claims that incorporated that oscillator element (claim 1 and the claims that depend from claim 1) were allowable while claims that omitted that oscillator element (claim 29 and the claims that depended from claim 29) were rejected. Therefore, any suggestion by Power Integrations that the claimed "frequency variation circuit" or "frequency variation signal" was the novel element of its claims is simply false.

b. **Power Integrations overcame the Examiner's rejection by amending its claims to require an oscillator element.**

Power Integrations embraced the Examiner's determination that the oscillator element was not shown in the admitted prior art. Power Integrations thanked the Examiner for allowing claim 1 (and its dependant claims) and amended claim 29 to include the exact same oscillator element required in claim 1. Exh. W, p. 3. Power Integrations then argued that claim 29 should be allowed in light of this amendment, claiming that the prior art did not teach such an oscillator:

35 U.S.C. § 102 Rejections

> In the December 13, 1999 Office Action, claims 29, 35 and 37 are rejected under 35 U.S.C. § 102(b) as being anticipated by Applicants' Prior Art Figure 1.
>
> Claim 29 as presently amended now expressly recites a regulation circuit that includes an oscillator that provides a maximum duty cycle signal and an oscillation signal having a frequency range that is varied according to a frequency variation signal. ***The Applicants' Prior Art Figure 1 fails to disclose, teach or suggest such limitations.*** Accordingly, the Applicants respectfully submit that the instant section 102 rejection has been overcome.

Id., p. 6 (emphasis added). Power Integrations never provided any reason other than the addition of the oscillator element to overcome the prior art. *Id.* Accepting Power Integrations' representation, the Examiner allowed the claims of the '851 Patent. *See* Exh. X.

c. **Power Integrations deliberately misled the Examiner by claiming that the prior art in Figure 1 did not include the claimed oscillator element of the '851 and '366 Patents.**

The oscillator element – the only reason that the Examiner allowed the claims of the '851 Patent – was present in Power Integrations' own prior art devices and incorporated, without the

Examiner's knowledge or understanding, into the admitted prior art of Figure 1. Knowing that the oscillator element was present in its own devices, it was inequitable conduct for Power Integrations' applicants and attorneys to affirmatively mislead the Examiner by explicitly stating that "Applicants' Prior Art Figure 1 fails to disclose, teach, or suggest such limitations."

Figure 1 of the '851 Patent includes pulse width modulated switch **90**. In that Figure, Power Integrations depicts pulse width modulated switch **90** as a "black box" and withholds from the Examiner any details of its operation. In the bottom right corner of that box, however, Power Integrations has identified pulse width modulated switch **90** as the "SMP211".

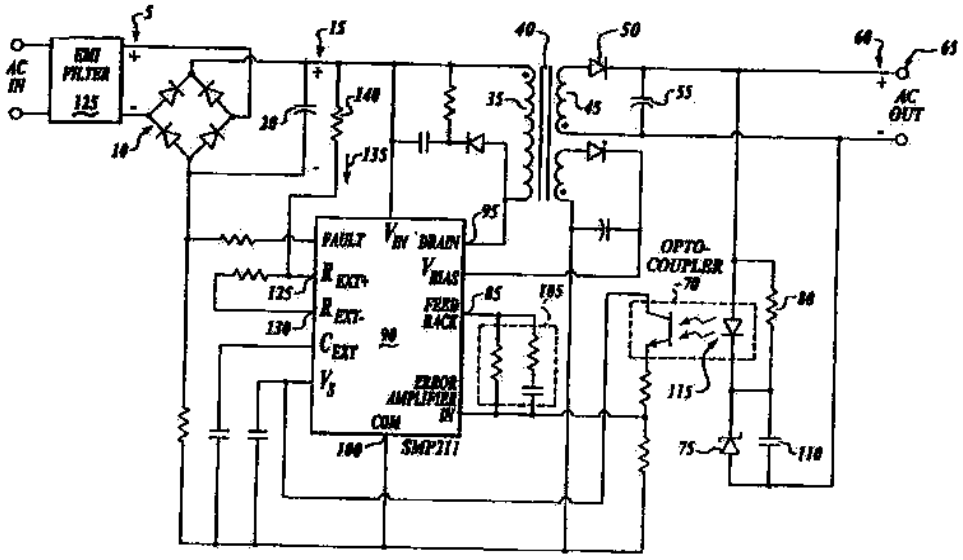

Fig. 1 (PRIOR ART)

Power Integrations does not explain to the Examiner in either the specification or the prosecution history that the "SMP211" referred to ***Power Integrations own prior art PWM device***. Contrary to Power Integrations' express statements to the Examiner, the prior art SMP211 (which is included in the admitted prior art of Figure 1) contains precisely the oscillator element that the Examiner incorrectly believed to be missing from the prior art:

Examiner's Statement	Power Integrations' Statement	Prior Art
The prior Art of record does not appear to disclose or suggest a PWM switch comprising an oscillator for generating a maximum duty cycle signal and a	Claim 29 as presently amended now expressly recites a regulation circuit that includes an oscillator that provides [i] a maximum duty cycle signal and [ii] an oscillation signal having a frequency range that is varied	**[i]** SMP211 had "an oscillator that provides a maximum duty cycle signal" Exh. U ("The D_{MAX} signal from the oscillator limits the maximum duty cycle by gating the output driver"); *see also* Fig. 3.
		[ii] Power Integrations admits that the prior art

singnal [sic] with a frequency range dependant on a frequency variation circuit as recited in claim 1.	according to a frequency variation signal. ***The Applicants' Prior Art Figure 1 fails to disclose, teach or suggest such limitations.***	of Figure 1 discloses "an oscillator that provides… an oscillation signal having a frequency range that is varied according to a frequency variation signal." '851 Patent, 3:14-17 ("The jitter current **135** is used to vary the frequency of the saw-toothed waveform generated by the oscillator contained in the pulse width modulated switch **90**.")

Thus, there is absolutely no merit to Power Integrations' present argument that the "frequency variation signal" element should be construed to exclude the admitted prior art. To the contrary, given the prosecution history of the '851 Patent, the "frequency variation signal" must be construed to ***include*** the prior art depicted in Figure 1 of that patent. The only "novel" element identified by either Power Integrations or the Examiner was the oscillator element. While this element was, in fact, in the admitted prior art, the Examiner could not have known that since (i) Power Integrations withheld information concerning its prior art SMP211 device from the Examiner and (ii) affirmatively stated that the prior art did not disclose this limitation, even though it is unambiguously shown in Power Integrations own prior art SMP211. It is the height of hypocrisy for Power Integrations to blame the Examiner for being so "foolish and incompetent" as to have been misled by Power Integrations' inequitable conduct.

Moreover, Power Integrations chose to rely on the purportedly novel oscillator element for allowance of its claims rather than narrow those claims to include the limitations it now seeks to add to the "frequency variation signal" element. Power Integrations could have amended its claim to recite that in contrast to Figure 1 the "frequency variation signal" of its claims was internal, varied cyclically and modulated the oscillation signal within a predetermined range. It chose not to do so, however, and should now be bound by the claims it elected to prosecute.

V. U.S. PATENT NO. 6,229,366 – "SOFT START CIRCUIT."[16]

A. The "Soft Start Circuit" Elements Of The '366 and '851 Patents Should Be Construed In Light Of The Intrinsic Evidence.

There is essentially only one dispute concerning the '366 Patent – the construction of "soft start circuit."[17] Fairchild believes that this term should be construed in light of the intrinsic

[16] This term also appears in dependant claims 4 and 14 of the '851 Patent.

[17] While Power Integrations also briefs the construction of "maximum duty cycle signal comprising an on-

evidence. Specifically, the specification of the '366 Patent states that "soft start functionality is termed to be a functionality that reduces the inrush currents at start up." '366 Patent, 2:66-67. Thus, a "soft start circuit" is a circuit that minimizes inrush currents at start up.

As with "frequency variation signal," Power Integrations argues that this straight forward construction should be rejected because the claims would then read on the admitted prior art. "This is especially true given that the literal language of the claim limitation could be considered to encompass the 'soft start capacitor 110,' which is explicitly addressed and referred to as "Prior Art" in the "Background of the Invention" section of the patent...." PI Brief, p. 17. While Power Integrations' determination to avoid the prior art is understandable, the fact that Power Integrations concedes that the literal language of the claim encompasses the prior art ends the inquiry. "The claim construction inquiry... begins and ends in all cases with the actual words of the claim." *Renishaw*, 158 F.3d at 1248.

B. As A Matter Of Law, The "Soft Start Circuit" Is Not Means-Plus-Function.

Seeking to avoid the prior art, Power Integrations argues that (i) the "soft start circuit" element is means-plus-function and (ii) the corresponding structures exclude the prior art structure described in the '366 Patent. Power Integrations is wrong on both counts. As a matter of law, the "soft start circuit" elements should not be construed as a means-plus-function limitations. Even were the Court to hold otherwise, it would be reversible error to exclude the prior art corresponding structure described in the specification of the '366 Patent.

1. There is a strong presumption that the "soft start circuit" is not a means-plus-function element.

Since the "soft start circuit" element is not written with "means for" language, it is presumed not to be a means-plus-function element. *Phillips*, 363 F.3d at 1212. "The presumption flowing from the absence of the term 'means' is a strong one that is not readily overcome." *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354 (Fed. Cir. 2004).

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state and an off-state," Fairchild does not dispute Power Integrations' proposed construction. *See* Exh. A (listing stipulated constructions). Indeed, Fairchild informed Power Integrations that the parties were in agreement on this term weeks before Power Integrations filed its brief.

To rebut this presumption, Power Integrations must prove that the claim fails to "recite sufficiently definite structure" or recites a "function without reciting sufficient structure for performing that function." *Watts v. XL Sys.*, 232 F.3d 877, 880 (Fed. Cir. 2000). "To help determine whether a claim term recites sufficient structure, we examine whether it has an understood meaning in the art." *CCS Fitness v. Brunswick Corp.*, 288 F.3d 1359, 1369 (Fed. Cir. 2002).

2. Power Integrations admits that the "soft start circuit" element calls to mind structure to one of skill in the art.

Power Integrations and its expert concede, as they must, that the "soft start circuit" elements recite sufficient structure and has a clear meaning in the art. *See* Blauschild Decl., ¶ 6 ("from a technical standpoint,... one of skill in the art could conceive of various 'soft start circuit' ***structures*** to accomplish the functions recited in the patent claims associated with the soft start circuit....") (emphasis added); PI Brief, p. 17. Thus, "the presumption is not rebutted because the claim limitation recites or refers to terms that are reasonably well understood in the art as names for structure and which perform the recited function...." *Watts*, 232 F.3d at 881; *see also* Horowitz Decl. ¶ 2.

"Means-plus-function claiming applies only to purely functional limitations that do not provide the structure that performs the recited function." *Phillips*, 415 F.3d 1303, 1311 (Fed. Cir. 2005). As Power Integrations' expert, Robert Blauschild, has previously testified, the use of the term "circuit" indicates structure and claim terms incorporating the word "circuit" should not be construed as means-plus-function:

> That persons of ordinary skill in the art would understand the structural arrangements of circuit components from the term "circuit" coupled with the qualifying language of claim 1 was recognized by Linear's expert witness. *See* Claim Construction Order, slip op. at 2-3 (quoting the declaration of Dr. [sic, Mr.] Blauschild that a person of ordinary skill in the art reading the claims "would have an understanding of, and would be able to draw, structural arrangements of the circuit elements defined by the claims.").

Linear Tech. Corp. v. Impala Linear Corp., 379 F.3d 1311, 1320 (Fed. Cir. 2004). Indeed, the Federal Circuit has held that the use of the term "circuit" denotes structure rather than function:

> Thus, when the structure-connoting term "circuit" is coupled with a description of the circuit's operation, sufficient structural meaning generally will be conveyed to

persons of ordinary skill in the art, and § 112 ¶ 6 presumptively will not apply. *Linear*, 379 F.3d at 1320. "The term 'circuit' with an appropriate identifier such as 'interface,' 'programming' and 'logic,' certainly identifies some structural meaning to one of ordinary skill in the art." *See Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1371-72 (Fed. Cir. 2003); *see also* Horowitz Decl. ¶ 2.

3. **The "soft start circuit" elements of the '366 and '851 patents cannot be means-plus-function as they describe specific structures.**

The only support Power Integrations offers to rebut the "strong presumption" that the "soft start circuit" elements is not means-plus-function is the declaration of its paid expert. As explained above, this extrinsic evidence is entitled to little weight since Mr. Blauschild contradicts the position he has previously taken with respect to such "circuit" claims. *See Linear*, 379 F.3d at 1320. For instance, Mr. Blauschild agrees that the "frequency variation circuit that provides a frequency variation signal" element contains sufficient structure such that it is not a means-plus-function element but argues that the "soft start circuit" element (which contains at least as much structure as the "frequency variation circuit" element) is, somehow, means-plus-function. *Compare* Blauschild Decl. ¶¶ 6 and 8.

The "soft start circuit" elements recite sufficient structure and should not be construed as means-plus-function terms. Had Power Integrations intended these elements to be means-plus-function, it would have drafted them in purely functional terms – *i.e.*, "a means for minimizing inrush current at startup." Instead, Power Integrations included a number of structural elements that would sufficiently define the "soft start circuit" to one of ordinary skill including (i) the "structure-connoting term 'circuit,'" (ii) specific operational details of that circuit (including that it provides a signal and that that signal be provided to another specific structure, the drive circuit), and (iii) specific operational details of the drive circuit (including that it generate a drive signal and that it disables the drive signal based on the signal provided by the soft start circuit during some portion of time). *See* '366 Claims 1 and 9; '851 Claims 4 and 16.

4. **If the "soft start circuit" elements are means-plus-function limitations, they must include all corresponding structures.**

The "soft start circuit" element should not be construed as a means-plus-function limitation because Power Integrations cannot rebut the strong presumption that § 112 does not apply. To the contrary, the claims refer to specific structure. Were the Court to hold otherwise, however, the Court must construe the element to refer to ***all*** of the corresponding structures in the specification that perform the claimed function. *See* 35 U.S.C. § 112 ¶ 6.

In its Brief, Power Integrations fails to identify either the claimed function or any corresponding structures for any of the four "soft start circuit" elements. As set forth in Fairchild's Opening Brief, the four soft start circuit elements recite four distinct functions for which there are two different sets of corresponding structures.

[illegible]	[illegible]	[illegible]
a soft start circuit that provides a signal instructing said drive circuit to discontinue said drive signal when said magnitude of said oscillation signal is greater than a magnitude of said frequency variation signal **'851 Patent, claim 4**	providing a signal instructing the drive circuit to discontinue the drive signal when the magnitude of the oscillation signal is greater than a magnitude of the frequency variation signal.	start up/soft start block **(410)** and low frequency oscillator **(405)** shown in Figures 3, 6, and 9, and the corresponding portions of the specification describing these structures.
a soft start circuit that provides a signal instructing said drive circuit to discontinue said drive signal according to a magnitude of said frequency variation signal **'851 Patent, claim 16**	providing a signal instructing the drive circuit to disable the drive signal according to a magnitude of the frequency variation signal.	start up/soft start block **(410)** and low frequency oscillator **(405)** shown in Figures 3, 6, and 9, and the corresponding portions of the specification describing these structures.
a soft start circuit that provides a signal instructing said drive circuit to disable said drive signal during at least a portion of said on-state of said maximum duty cycle **'366 Patent, claim 1**	providing a signal instructing the drive circuit to disable the drive signal during at least a portion of the on-state of the maximum duty cycle signal.	(i) the circuit shown in Figure 1, including soft start capacitor **(110)** (ii) the soft start block **(410)** and low frequency oscillator **(405)** shown in Figures 3, 6, and 9 (iii) the corresponding portions of the specification describing these structures.
a soft start circuit that provides a signal instructing said drive circuit to disable said drive signal during at least a portion of said maximum time period **'366 Patent, claim 9**	providing a signal instructing the drive circuit to disable the drive signal during at least a portion of the maximum time period.	(i) the circuit shown in Figure 1, including soft start capacitor **(110)** (ii) the soft start block **(410)** and low frequency oscillator **(405)** shown in Figures 3, 6, and 9 (iii) the corresponding portions of the specification describing these structures.

Two of these functions (the functions corresponding to the soft start circuit element of the claims of the '851 Patent) require a frequency variation signal. Thus, the corresponding structure requires both the start up/soft start block and the low frequency oscillator, which generates the required frequency variation signal. The function of the soft start circuit elements of the '366 Patent are broader in that they do not require a frequency variation signal. Thus, while one corresponding structure would be the same combination of start up/soft start block and the low frequency oscillator, a second corresponding structure is also disclosed – the circuit shown in Figure 1, including the soft start capacitor. Horowitz Decl. ¶ 3.

While Power Integrations concedes that this prior art capacitor satisfies the "literal language" of the claims (PI Brief, p. 17), Power Integrations argues that the Court should ignore this corresponding structure. To do so would be a reversible error. *Callicrate v. Wadsworth Mfg.*, 427 F.3d 1361, 1369 (Fed. Cir. 2005) (construction of means-plus-function term that did not include all corresponding embodiments was in error).

Power Integrations argues that the claims should not be construed to cover the prior art. As explained above, the only allegedly novel element of the claims was the oscillator element that Power Integrations told the Examiner was missing from the prior art even though it was clearly disclosed in Power Integrations own prior art SMP211 device, which was referred to in Figure 1 (Prior Art). Having tricked the Examiner into allowing these claims, it is disingenuous for Power Integrations to now rely on the fact that the claims were improperly issued to argue that the "soft start circuit" element – an entirely different element from that which was discussed during prosecution of the patents – should be construed to exclude the prior art.

Indeed, the Federal Circuit reversed a district court that accepted the argument now proposed by Power Integrations:

> Clearly, the written description does point out the disadvantages of the rigid-conduit system and the advantages of the flexible-hose system. However, the written description does not require that only the new, flexible-hose system, but not the old, rigid-conduit system, could be used in the claimed wastewater treatment plant. It is well established in patent law that a claim may consist of all old elements, such as the rigid-conduit system, for it may be that the combination of the old elements is novel and patentable. Similarly, it is well established that a claim may consist of all

old elements and one new element, thereby being patentable.

Clearstream Wastewater Systems, Inc. v. Hydro-Action, Inc., 206 F.3d 1445 (Fed. Cir. 2000). While, as in *Clearstream*, the '366 Patent describes disadvantages of the prior art soft start circuit, rather than disclaim that structure the patent teaches how to overcome these disadvantages:

> The [prior art] approach described above will reduce inrush currents into the power supply, however, it will be several cycles before the light emitting diode **115** will begin conducting. During the several cycles the maximum inrush current will still flow through the primary winding and other secondary side components. During these cycles the transformer may saturate, and therefore the transformer may have to be designed utilizing a higher core size than would be required for normal operation even with the use of soft start capacitor as in FIG. 1.

'366 Patent, 3:8-17. Thus, were the soft start circuit elements of claims 1 and 9 of the '366 Patent to be construed in means-plus-function terms, soft start capacitor **(110)** is a corresponding structure.

VI. U.S. PATENT NO. 6,249,876.

A. The Court Need Not Construe "Frequency Jitter" From The Preamble Of Claim 1 Of The '876 Patent.

1. "Frequency jitter" is not a limitation.

The term "frequency jitter" appears only in the preamble of claim 1 of the '876 Patent. Thus, "a preliminary question exists as to whether [it] is a claim limitation." *Seachange Int'l, Inc. v. C-Cor Inc.*, 413 F.3d 1361, 1375 (Fed. Cir. 2005). While Power Integrations fails to address this issue, it must be settled before the term "frequency jitter" is construed.

"The preamble of a claim does not limit the scope of the claim when it merely states a purpose or intended use of the invention." *In re Paulsen*, 30 F.3d 1475, 1479 (Fed. Cir. 1994). Here, claim 1 of the '876 Patent recites "a digital frequency jittering circuit for varying the switching frequency of the power supply...." Indeed, in its Brief, Power Integrations agrees that the "frequency jitter," as used in the preamble of Claim 1, discusses the "purpose" of the Claim. PI Brief, p. 7 ("Thus, the ***purpose*** of the frequency jittering circuit is to vary the frequency in a controlled manner to achieve EMI reduction.") (emphasis added).

After stating this intended use, the claim describes the required elements (an oscillator, a

digital to analog converter, and a counter). *See* '876 Patent, Claim 1. At no time, however, does the body of the claim refer to the "frequency jitter circuit" mentioned in the preamble. Since the preamble does not give "life, meaning or vitality" to the claim, it is not a limitation and need not be construed. *See Intirtool, Ltd. v. Texar Corp.*, 369 F.3d 1289, 1296 (Fed. Cir. 2004).

2. Should the Court construe "frequency jitter" it should give effect to the express definition in the patent's specification.

Were the Court to construe "frequency jitter," it should defer to the patent's express definition. "Varying the frequency of operation of the pulse width modulated switch by varying the oscillation frequency of the oscillator is referred to as frequency jitter." '851 Patent, 3:28-30.[18] As the Federal Circuit has noted "our cases recognize that the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs." *Phillips*, 415 F.3d at 1316. Thus, "frequency jitter" is simply "varying the frequency of operation of the pulse width modulated switch by varying the oscillation frequency of the oscillator."

3. The Court should not incorporate limitations from the preferred embodiment.

Power Integrations ignores the inventors' definition of "frequency jitter" and seeks to import limitations from the specification into the preamble of the claim. Specifically, Power Integrations argues that the Court should limit "frequency jitter" to "a [i] ***controlled*** and [ii] ***predetermined*** change or variation in the frequency of a signal." PI Brief, p. 7 (emphasis added).

Power Integrations' proposed additional limitations, however, contradict the intrinsic evidence. For instance, the specification of the '851 Patent (incorporated by reference into the '876 Patent) describes prior art frequency jitter whereby the variation is neither controlled nor predetermined. *See* '851 Patent, 3:9-37. Power Integrations' limitations should be rejected.

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[18] Since the specification of the '851 Patent was incorporated by reference into the specification of the '876 Patent ('876 Patent, 6:6-12), this unambiguous definition of "frequency jitter" is part of the intrinsic evidence of the '876 Patent. *See Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316 (Fed. Cir. 2001).

B. The Term "Coupled" From Claim 17 Of The '876 Patent Should Be Given Its Plain And Ordinary Meaning.

As Power Integrations admits, "the term 'coupled' is often used in patent claims and has often been construed by Courts." PI Brief, p. 9. While noting these previous constructions, Power Integrations fails to provide them to the Court. These constructions, however, are instructive as they confirm "that the ordinary and accustomed meaning of the term 'couple,' even when used in an electronics context does not solely mean 'directly coupled.'" *Silicon Graphics v. nVIDIA Corp.*, 58 F. Supp. 2d 331, 346 (D. Del. 1999).

"Coupled" should be given its plain and ordinary meaning – "two circuits are coupled when they are configured such that signals pass from one to the other." This is consistent with the claims, which describe signals passing from one circuit element to a coupled circuit element:

- The claimed digital to analog converter is "coupled" to the control input of the oscillator for varying the switching frequency. This is accomplished by passing signals from the converter to the oscillator.
- The claimed counter is "coupled" to the output of the oscillator and to the digital to analog converter. Since the counter causes the digital to analog converter to adjust the control input of the oscillator, signals must pass from the converter to the counter.

See '876 Patent, Claim 1.

Contrary to Power Integrations' proposed construction, "coupled" does not imply a direct connection or the absence of intermediate circuit elements. *See Silicon Graphics*, 58 F. Supp. 2d at 346. Indeed, the '876 Patent describes circuit elements as "coupled" even though they are magnetically rather than directly connected. *See, e.g.*, '876 Patent, 8:5-7 ("A secondary winding 922 is magnetically coupled in series across a primary winding of a transformer 920.").

Power Integrations' construction is inappropriately driven not by the intrinsic evidence but, rather, by Power Integrations' concern that its claims will ultimately be found invalid in light of the prior art. *See* PI Brief, p. 9 ("Fairchild's construction, on the other hand, would read on a [prior art] circuit where there is a memory device, or ROM, between the counter and DAC...."). To avoid this prior art, Power Integrations seeks a construction whereby "coupled" is limited to a direct connection and would preclude any intermediate elements.

This restrictive use of the term "coupled" is directly contrary to how Power Integrations' inventors used the term. Balu Balakrishnan, the lead inventor of the '876 Patent, has an earlier patent – U.S. Patent No. 5,014,178 (the "'178 Patent"). This patent is incorporated by reference into the '851 Patent (*see* '851 Patent, 5:54-59), which in turn is incorporated by reference into the '876 Patent. *See* '876 Patent, 6:6-12. Thus, the '178 Patent is part of the intrinsic evidence of the '876 Patent as if it were set forth word for word in that patent's specification. *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316 (Fed. Cir. 2001) ("When a document is 'incorporated by reference' into a host document, such as a patent, the referenced document becomes effectively part of the host document as if it were explicitly contained therein.").

The '178 Patent makes clear that devices can be coupled even if there are intermediate circuit elements. Indeed, that patent claims "a pulse width modulator coupled to the feedback capacitor ***through a voltage divider***." '178 Patent, Claim 4; *see also* Claim 1 ("a gate, ***coupled through a resistance*** to the drain of the high voltage power up transistor."). Consistent with this intrinsic evidence, "coupled" cannot be limited to a direct connection and cannot be construed to exclude intermediate elements through which the circuits are coupled.

C. "Primary Voltage," "Secondary Voltage," "Secondary Voltage Sources," "Supplemental Voltage," and "Combining" From Claims !7-19 Of The '876 Patent Should Be Given Their Plain And Ordinary Meanings.

Given their interdependent nature, "primary voltage," "secondary voltage," "secondary voltage sources," "supplemental voltage," and "combining" are best considered together.[19]

1. "Primary voltage" is "a voltage generated by the primary voltage source."

Power Integrations agrees that the "primary voltage" is "a base or initial voltage." PI Brief, p. 11. While Power Integrations' construction is not wrong, it is incomplete as it does not address how this "base or initial voltage" comes to be. Claim 17 of the '876 Patent requires "generating a primary voltage" (or, substituting in Power Integrations' proposed construction, "generating a ***base or initial voltage***"). This primary voltage must necessarily be generated by a

[19] To simplify the case, Fairchild is willing to adopt Power Integrations proposed construction of "cycling."

primary voltage source (a source of this base or initial voltage).

Power Integrations rejects this plain and ordinary meaning of the term "primary voltage" and argues that the primary voltage can be generated by the claimed "secondary voltage sources." This is contrary to the plain language of the claim 17, which specifies that the "secondary voltage sources" "generate a secondary voltage." If the claim intended a single voltage source to generate both the primary and secondary voltages, it would not have designated that source as the "***secondary*** voltage source," which implies that there must be a separate primary voltage source.

2. "Secondary voltage" is "a voltage generated by the secondary voltage sources."

Indeed, Power Integrations concedes that "'Secondary' in its plain meaning refers to something that comes second or subsequent." PI Brief, p. 12. Thus, a "secondary voltage source" must refer to a "***second or subsequent*** voltage source" – this makes perfect sense since the "first or primary" voltage source is the source of the primary voltage.

Therefore, substituting in what Power Integrations admits to be the plain meaning of "secondary," "cycling one or more secondary voltage sources to generate a secondary voltage" simply means "cycling one or more ***second or subsequent*** voltage sources to generate a ***second or subsequent*** voltage." Clearly, the "second or subsequent" voltage generated by the "second or subsequent" voltage sources must be different from the "primary voltage."

Despite this, Power Integrations argues that the claimed "secondary voltage" can be identical to the claimed "primary voltage." *See* PI Brief, p. 12. Not only is this construction contrary to the plain meaning of the terms, it violates the common sense rule that different claim terms should be understood to refer to different things. *Innova/Pure Water, Inc. v. Safari Water Filtration Sys.*, 381 F.3d 1111, 1119 (Fed. Cir. 2004) ("While not an absolute rule, all claim terms are presumed to have meaning in a claim."). Had Power Integrations intended the "primary voltage" (and its source) to be the same as the secondary voltage (and its source), Power Integrations would not have named them differently in its claims.

3. "Combining" means "adding together from two or more different sources."

The requirement that the "primary voltage" and the "secondary voltage" are distinct is confirmed by claim 17 of the '876 Patent. That claim further requires that these separate voltages be "combined" and that this "combined" voltage be received at the control input of a voltage-controlled oscillator. *See* '876 Patent, Claim 17. Since that which is combined must be initially separate, the primary voltage must be distinct from the secondary voltage.

Indeed, the parties agree that "combining" means "adding together." Inherent in this, however, is the fact that what is added together must first be distinct (because if it were not distinct, it could not be "combined"). Without any support or explanation, Power Integrations rejects this plain meaning of the term and apparently argues that two things that are not distinct can be combined. This is wrong, the Court should give "combining" its plain and ordinary meaning – "adding together from two or more different sources."

4. "Supplemental voltage" is "a voltage other than the primary or secondary voltages."

Claim 19, which depends from claim 17, further requires a "supplemental voltage." Since this is an additional voltage – distinctly named and different from either the primary or secondary voltages – "supplemental voltage" should be construed to mean "a voltage other than the primary or secondary voltages."

Power Integrations ignores the rule that different claim terms are presumed to have different meanings and argues that the "supplemental voltage" can be the same as the "secondary voltage." *See* PI Brief, p. 14. Power Integrations argues that each secondary voltage source generates a supplemental voltage, which are added together to the become the secondary voltage. This argument fails since claim 17 does not require more than one secondary voltage source. According to Power Integrations, however, if there were only one secondary voltage source there would be only one "supplemental voltage" and this supplemental voltage would be identical to the claimed "secondary voltage". Since different claim terms should be construed to refer to different things (and the "supplemental voltage" cannot be identical to the "secondary voltage"),

Power Integrations' proposed construction must be rejected.

Additionally, Claim 19 further requires "passing the supplemental voltage to the voltage-controlled oscillator." If, as Power Integrations contends, the supplemental voltage were the same as the secondary voltage, this claim limitation would have no meaning (since the secondary voltage is already combined with the primary voltage and passed to the oscillator). Only if the supplemental voltage is distinct from the secondary voltage does this limitation make sense.

VII. CONCLUSION.

For the foregoing reasons, Fairchild respectfully requests that the Court adopt Fairchild's proposed construction of the disputed claim terms.

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CERTIFICATE OF SERVICE

I hereby certify that on the 23rd day of January, 2006, the attached **REDACTED PUBLIC VERSION OF DEFENDANTS' ANSWERING CLAIM CONSTRUCTION BRIEF** was served upon the below-named counsel of record at the address and in the manner indicated:

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